INNODISK iSMART
Linux Execution File
2.8
User's Guide

INNODISK PUBLIC DOCUMENT
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1. Revision History

Revision	Description	Date
2.6	Official release	Nov. 14, 2014
2.8	Add 3MG2-P	Jan. 13, 2015

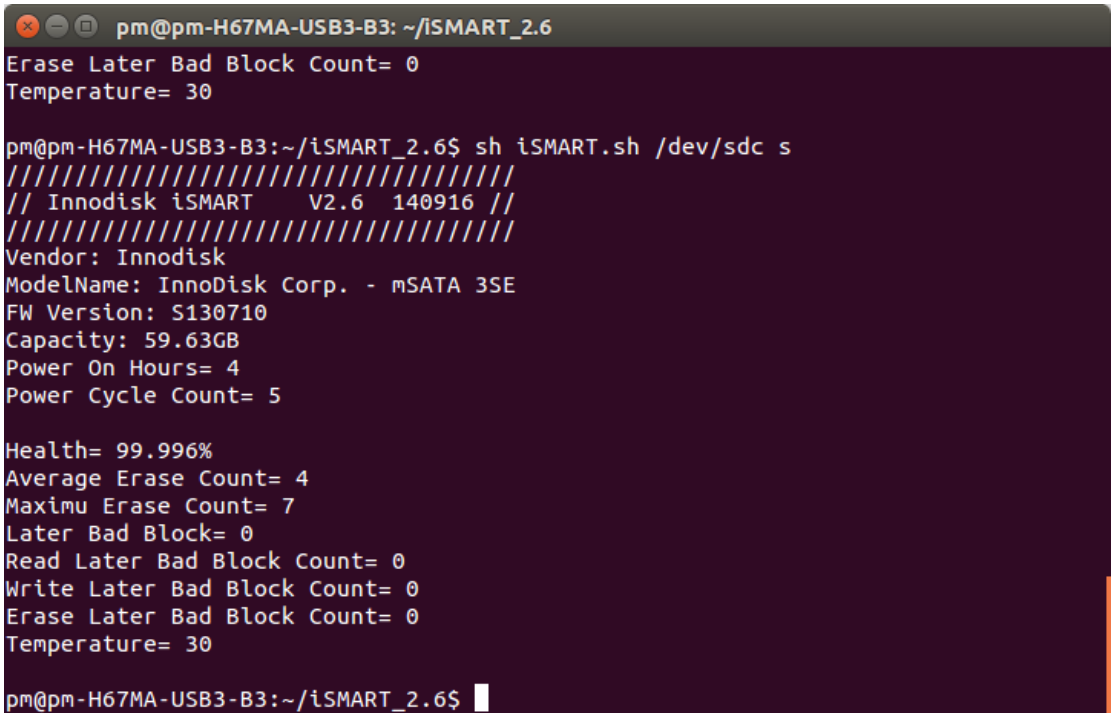
2. Execution File for Linux

iSMART reports following items to show the information of SSD. However, due to the support of controller, you may see only part of items for a product. Please refer to Section 3.1 for details.

Item	Description
Health	Health indicates the percentage of remaining disk life.
AverageEraseCount	The average erase count of all blocks.
MaximumEraseCount	The maximum erase count of all blocks.
TotalBadBlock	The total counts of bad block.
LaterBadBlock	After user used SSD for a period of time, there will have some bad block. Later bad block is unstable. SMART firmware will stop using bad block and do bad block replacement.
InitialFreeBlock	When system has a new bad block, free block is needed to do the replacement.
FreeBlock	The count of free block.
TotalEraseBlock	This value shows block erase counts of whole SSD.
ECCFailCount	The count of fail ECC.
CorrectedECCCount	The count of corrected ECC.
ReadLaterBadBlockCount	Total numbers of bad block occurring by reading data with ECC error.
WriteLaterBadBlockCount	Total numbers of bad block occurring by writing data with flash error.
EraseLaterBadBlockCount	Total numbers of bad block occurring by erasing block with error.
TotalGoodBlock	The total counts of good block.
InitialBadBlock	The count of initial bad block.
FlashEnduranceCount	The count of flash endurance.
Temperature	The temperature range is from -50℃~105℃ on a single disk. It supports commercial temperature (0℃ ~70 ℃) and industrial temperature (-40℃~85 ℃). *For SATA III drives iSMART only support temperature on industrial temperature products.

For MLC products please enter (./iSMART.sh /dev/sda m)
For SLC products please enter (./iSMART.sh /dev/sda s)
For iSLC products please enter (./iSMART.sh /dev/sda i)
(a,b,c: Device name)
Usage: execution file device

The sample result is as following picture.



3. Support List

3.1. SMART Functions

There are various SMART functions. However, due to the support of controller, not all the functions are supported by every SSD.

	G1	G2	G3	G4	G5	G6
Health	O	O	O	O	O	O
AverageEraseCount	O	O	O	O	X	O
MaximumEraseCount	X	O	O	O	X	O
MinmumEraseCount	X	X	X	X	X	O
TotalBadBlockCount	X	O	X	X	X	X
LaterBadBlockCount	O	O	X	O	X	X
InitialBadBlock	X	X	X	X	X	O
FreeBlockCount	O	X	O	O	O	O
FlashEnduranceCount	O	X	X	X	X	X
ReadLaterBadBlockCount	O	O	X	X	X	X
WriteLaterBadBlockCount	O	O	X	X	X	X
EraseLaterBadBlockCount	O	O	X	X	X	X
TotalGoodBlock	X	X	O	X	X	X
InitialBadBlock	X	X	X	O	X	O
InitialFreeBlock	X	X	X	X	O	X
FreeBlock	X	X	X	X	X	O
ECCFailCount	X	X	X	X	O	X
CorrectedECCCount	X	X	X	X	O	O
TotalEraseBlock	X	X	X	X	O	O
Temperature	O	O	O	X	X	O
Total LBAs Read	X	X	X	X	X	O
Total LBAs Written	X	X	X	X	X	O

O：Support

X：Not support

G1~G6 refer to different groups of products which use different controllers.

G1:

InnoRobust II SATA SSD

InnoRobust II PATA SSD
EverGreen Plus 2.5" SATA SSD
EverGreen 2.5" SATA SSD
EverGreen mSATA
EverGreen SATA Slim

G2:

InnoLite II 1.8" SATA SSD
SATADOM D150QV
SATADOM D150QV-L
SATADOM D150SV-L
SATADOM D150SV
SATADOM D150QH
SATADOM D150SH-L
SATADOM D150SH
InnoLite SATADOM D150QV
InnoLite SATADOM D150QV-L
InnoLite SATADOM D150QH
mini PCIeDOM D150
miniDOM-U
mSATA D150Q
InnoLite mSATA D150Q
InnoLite mSATA mini D150
SATA Slim D150Q
InnoLite SATA Slim D150Q
CF-SATA
CFast D150Q
InnoLite CFast D150Q
SATA 25000
SATA 10000+
ATA 9000
InnoLite II 2.5" SATA SSD
SATA Slim J200
2.5" 3SE
2.5" 3ME
2.5" 3IE
2.5" 3MG-P
2.5" 3SE-P

2.5" 3MR-P
2.5" 3SR-P
2.5" 3MG2-P
SATADOM-MV 3ME
SATADOM-SV 3ME
SATADOM-SH 3ME
SATADOM-MV 3IE
SATADOM-SV 3IE
SATADOM-SH 3IE
SATADOM-MV 3SE
SATADOM-SV 3SE
SATADOM-SH 3SE
SATA Slim 3MG-P
SATA Slim 3SE
SATA Slim 3SE-P
SATA Slim 3ME
SATA Slim 3IE
mSATA 3ME
mSATA 3MG-P
mSATA 3IE
mSATA 3SE
mSATA 3SE-P
mSATA mini 3ME
mSATA mini 3SE
mSATA mini 3IE
CFast 3ME
CFast 3IE
CFast 3SE

G3:

SATA 10000
InnoLite SATA SSD
InnoLite PATA
iCF 9000

G4:

EDC 4000+

CF 4000+

InnoLite EDC

InnoLite CF

iCF 9000

G5:

EDC 4000

CF 4000

G6:

3MG2-P

3.2. OS List

- Linux kernel 2.6, 32bit, 64bit
- Linux kernel 3.0, 32bit, 64bit